CLAIMS:

1. A cancer vaccine comprising a polypeptide of the CD55 family, or a fragment or derivative of a polypeptide of the CD55 family, wherein the vaccine is capable of inducing an immune response in a patient.

2. A cancer vaccine according to claim 1 wherein the polypeptide of the CD55 family is, or the fragment or derivative is of, 791Tgp72 antigen.

3. A cancer vaccine according to claim 1 or claim 2 comprising full length 791Tgp72 antigen or CD55 polypeptide.

4. A cancer vaccine according to any preceding claim wherein the antigen, polypeptide, fragment or derivative has part or all of the amino acid sequence of Fig. 10.

5. A cancer vaccine according to any preceding claim wherein the antigen, polypeptide, fragment or derivative includes part or all of the amino acid sequence consisting of amino acids 97-159 of Fig. 10.

6. A cancer vaccine according to claim 5 wherein the antigen, polypeptide, fragment or derivative includes a sequence having at least five amino acids identical with corresponding amino acids of a contiguous stretch of seven amino acids contained within amino acids 121-128 or 151-158 of Fig. 10.

7. A cancer vaccine according to any preceding claim wherein the antigen, polypeptide, fragment or derivative

includes a sequence having at least six amino acids identical with corresponding amino acids of a contiguous stretch of nine amino acids contained within amino acids 83-93 of Fig. 10.

8. A cancer vaccine according to any preceding claim comprising a fragment of at least five contiguous amino acids from a polypeptide of the CD55 family.

9. A cancer vaccine according to claim 8 comprising a fragment of at least five contiguous amino acids from the amino acid sequence shown in Fig. 10.

10. A cancer vaccine according to claim 8 or claim 9 wherein the fragment is of at least seven contiguous amino acids.

11. A cancer vaccine according to claim 10 wherein the fragment is of at least nine contiguous amino acids.

12. A cancer vaccine according to claim 11 wherein the fragment is of at least 13 contiguous amino acids.

13. A cancer vaccine comprising a nucleic acid molecule which encodes an antigen, polypeptide, fragment or derivative as specified in any preceding claim, wherein the vaccine is capable of inducing an immune response in a patient.

14. A cancer vaccine according to claim 13 having part or all of a nucleic acid sequence as shown in Fig. 10 or Fig. 11.

15. A cancer vaccine according to any preceding claim wherein the immune response is one or more of a T-helper cell response, a cytotoxic T-cell response and a NK cell response.

16. A cancer vaccine according to any preceding claim which is capable of inducing an immune response against CD55 or 791gp72 as expressed by cancer cells.

17. A cancer vaccine according to claim 16 wherein the immune response has greater affinity for cancer cells than for non-cancerous cells.

18. The use of an antigen, polypeptide, fragment, derivative or a nucleic acid molecule as specified in any preceding claim in the preparation of a medicament for the treatment of cancer.

19. A method of treating a patient having cancer, the method comprising administering to the patient a therapeutically effective amount of a cancer vaccine as defined in any one of claims 1 to 17.

20. Isolated and purified 791Tgp72 antigen.

21. Isolated and purified 791Tgp72 antigen according to claim 20 having the amino acid sequence shown in Fig. 10 and a molecular weight of approximately 66 kD.

22. Isolated and purified 791Tgp72 antigen according to claim 20 or claim 21 wherein the specificity of antibody binding to the said antigen, relative to antibody binding to the CD55 antigen as expressed on human red blood cells

and/or HUVEC cells, is greater for 791T/36 than for anti-CD55 antibody BRIC 216.

23. Isolated and purified 791Tgp72 antigen according to any one of claims 20 to 22, as obtainable by:

(a) solubilising 791T cells in lysis buffer including 1% octyl-B-glucoside, pH 8.5 for 1 hour at 4°C;

(b) centrifuging the lysate at 13000 rpm x 10 min following 100,000 g x 30 min;

(c) adding the cleared lysate to Protein A sepharose coupled to 791T/36 affinity column;

(d) cycling the supernatant over the column at 0.3-0.4 ml/min;

(e) washing the column with 20ml 20 mM Tris-HCl pH 8.0 containing 0.3 M NaCl and 0.1% NP-40; and,

(f) eluting 791Tgp72 from the column in 5 column volumes of diethylamine pH 11.5 containing 0.5% NP-40 and neutralising the eluate with 1M Tris.

24. A pharmaceutical composition comprising 791Tgp72 according to any one of claims 20 to 23 in combination with a pharmaceutically acceptable carrier.

25. 791Tgp72 according to any one of claims 20 to 23 for use in a method of medical treatment.

26. A method for isolating 791Tgp72 antigen from cells expressing 791Tgp72, the method including the steps of:

solubilising the cells with lysis buffer including octyl-glucoside; and

treating the lysate using ultracentrifugation.